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# *CROSSOTHAMNUS PASCOANUS* (ASTERACEAE-EUPATORIEAE), A NEW SPECIES FROM PASCO, PERÚ

B. Turner[1] & M. Dillon[2]

[1]Department of Botany, University of Texas, Austin, Texas 78713 U.S.A.
[2]Department of Botany, Field Museum of Natural History, Chicago, Illinois 60605 U.S.A.

## ABSTRACT

A new species, **Crossothamnus pascoanus**, is described from Pasco, Perú. It is closely related to *C. weberbaueri* (Hieron.) King & H. Robins. in gynoecial characters, possessing broad smooth style branches and a glabrous node at the base of the shaft.

KEY WORDS: *Crossothamnus*, Asteraceae, Eupatorieae, Perú

Routine identification of Peruvian Asteraceae has revealed the following novelty.

**Crossothamnus pascoanus** M. Dillon & B. Turner, *sp. nov.*, Figure 1. TYPE: PERÚ. Pasco: Oxapampa, Cordillera Yanachaga (10° 35′ S, 75° 20′ W), Cerro Pajonal "Chacos," 12 km SE of Oxapampa, "Shrubland on white sandstone, spongy sphagnum humus up to 2 m deep except where burned," 2700-2800 m, 7 Oct 1982, *Robin B. Foster 8995* (HOLOTYPE: F!; Isotypes: TEX!, others to be distributed).

*Crossothamno weberbauerio* (Hieron.) King & H. Robins. similis sed capitulis sessilibus glomerulis congestis et foliis multo majoribus basibus obtusis vel rotundatis differt.

Shrub to 1 m high. Stems densely purplish pilose. Leaves opposite, thick and leathery, 5-10 cm long, 2.5-5.0 cm wide; petioles 3-8 mm long; blades ovate elliptic to elliptic, pinnately nervate, prominently reticulate above and below, glabrous above, moderately pubescent below, especially along the veins, the undersurfaces with numerous amber colored atomiferous glands, the margins entire or nearly so. Heads numerous and sessile in congested rounded corymbs.

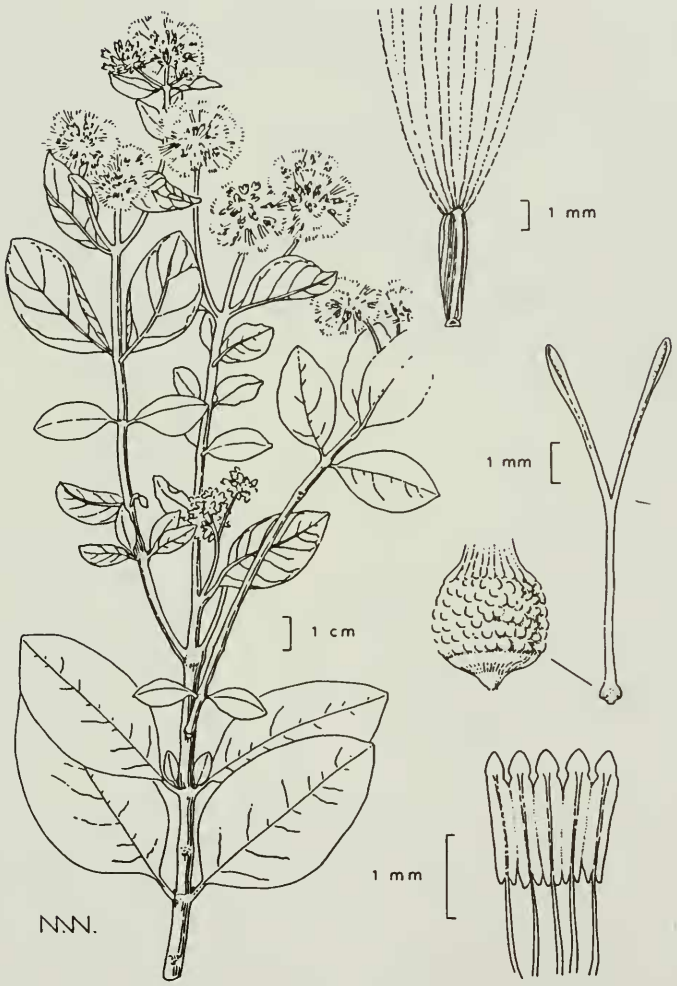


Fig 1. Crossothamnus pascoanus, from holotype.

Involucres campanulate, 7-8 mm high, 4-5 seriate, graduate, 3-9 striate, brown pilose apically, the inner bracts readily deciduous. Receptacles convex, ca. 1.5 mm across, naked. Florets ca. 10 per head, the corollas lavender or purple, tubular, 5-6 mm long, glabrous, the lobes ca. 0.5 mm long, ca. 0.3 mm wide. Anthers with collars ovate having annular thickenings, the apical appendages about as long as wide. Style with a glabrous bulbous basal node, the epidermal cells bulging; style appendages smooth and enlarged apically, ca. 0.35 mm wide. Achenes 3-4 mm long, 5-7 ribbed, glabrous, the carpopodium a thin, poorly differentiated rim, the pappus of 40-50 persistent barbellate tawny bristles 6-7 mm long, their apices somewhat enlarged.

This very distinct species would be difficult to position within *Eupatorium*, sensu lato, mainly because it has features reminiscent of *Brickellia* and yet other genera which King & Robinson (1987) position in their subtribe Alomieae. Among these, it is seemingly closest to their, heretofore, monotypic genus *Crossothamnus* King & H. Robins., which is based upon the Peruvian species, *Eupatorium weberbaueri* Hieron.

It differs from the latter in many characters, most notably the larger, sessile heads (indeed, the generic name is derived from the nodding tassel-like heads found in the generitype), and glabrous achenes. We might also have positioned *Crossothamnus pascoanus* in the closely related genus *Condylopodium* King & H. Robins., the latter with four species, all having pubescent basal nodes on their stylar shafts except for *Condylopodium killipii* King & H. Robins., from Perú, having a glabrous basal node. Perhaps the latter species might best be positioned in *Crossothamnus* or, better yet, the two genera combined. We would tend to opt for the latter, but *phyletic* relationships among the various genera and subtribes proposed by King & Robinson (1987) are so poorly known that it would seem best to retain some of those proposed than to combine or erect yet others. Indeed, *Crossothamnus pascoanus* might with some validity be proposed as the type of a new genus, using the criteria of King & Robinson, and such a fate might await the species as it comes under the scrutiny of yet finer observers.

The two species now assigned to *Crossothamnus* reflect a common allopatric distributional pattern in Perú, where different taxa are wholly confined to the drainage patterns of separate river systems. *Crossothamnus pascoanus* is only known from the upper tributaries of the Río Palcazu, that eventually joins the Río Pachitea and Río Ucayali. Whereas, *C. weberbaueri* is known from the upper reaches of the Río Sonche, a tributary of the Río Utcubamba which eventually joins the Río Marañón. Similar distributional patterns are displayed in *Llersia* (Sagástegui-Alva & Dillon 1988) and *Flourensia* (Dillon 1986). These disjunctions, coupled with distinctive morphological differences, suggest long term isolation, probably in response to glacial cycles, rather than more recent long distance dispersal.

## ACKNOWLEDGMENTS

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